

**In the Claims:**

**Claim 1 (currently amended):** A structure comprising:

a substrate having a top surface for receiving a die;

a printed circuit board attached to a bottom surface of said substrate;

a support pad attached to said top surface of said substrate, ~~said support pad being situated underneath said die, said support pad being coupled to a ground bond pad of said die by a down bonding wire, said die being mounted on said support pad;~~

at least one via in said substrate;

said at least one via providing an electrical connection between a signal bond pad of said die and said printed circuit board.

**Claim 2 (original):** The structure of claim 1 wherein said die is a semiconductor die.

**Claim 3 (original):** The structure of claim 1 wherein said substrate comprises organic material.

**Claim 4 (original):** The structure of claim 3 wherein said organic material is selected from the group consisting of polytetrafluoroethylene material and an FR4 based laminate material.

**Claim 5 (original):** The structure of claim 1 wherein said substrate comprises a ceramic material.

**Claim 6 (original):** The structure of claim 1 wherein said at least one via provides an electrical connection between a substrate bond pad and said printed circuit board, wherein said substrate bond pad is electrically connected to said signal bond pad of said die.

**Claim 7 (original):** The structure of claim 6 wherein said at least one via abuts said substrate bond pad.

**Claim 8 (original):** The structure of claim 6 wherein said substrate bond pad is electrically connected to said signal bond pad of said die by a signal bonding wire.

**Claim 9 (original):** The structure of claim 1 wherein said at least one via provides an electrical connection between said signal bond pad of said die and a land, said land being electrically connected to said printed circuit board.

**Claim 10 (original):** The structure of claim 9 wherein said at least one via abuts said land.

**Claim 11 (original):** The structure of claim 1 wherein said at least one via provides an electrical connection between a substrate bond pad and a land, wherein said substrate bond pad is electrically connected to said signal bond pad of said die, and wherein said land is electrically connected to said printed circuit board.

**Claim 12 (original):** The structure of claim 11 wherein said at least one via abuts said substrate bond pad and said land.

**Claim 13 (original):** The structure of claim 11 wherein said substrate bond pad is electrically connected to said signal bond pad of said die by a signal bonding wire.

**Claim 14 (original):** The structure of claim 12 wherein said substrate bond pad is electrically connected to said signal bond pad of said die pad by a signal bonding wire.

**Claim 15 (original):** The structure of claim 1 wherein said at least one via comprises copper.

**Claim 16 (original):** The structure of claim 1 wherein said at least one via comprises a thermally conductive material.

**Claim 17 (previously presented):** A structure comprising:

a substrate having a top surface and a bottom surface;

a semiconductor die attached to said top surface of said substrate;

a heat spreader attached to said bottom surface of said substrate;

a support pad attached to said top surface of said substrate, said support pad being connected to said heat spreader;

a first via in said substrate;

said first via providing a connection between said semiconductor die and said heat spreader.

**Claim 18 (original):** The structure of claim 17 wherein said heat spreader is attached to a printed circuit board.

**Claim 19 (original):** The structure of claim 17 wherein said heat spreader is an electrical conductor.

**Claim 20 (original):** The structure of claim 19 further comprising a substrate down bond area attached to said top surface of said substrate.

**Claim 21 (original):** The structure of claim 20 wherein said first via provides an electrical connection between said substrate down bond area and said heat spreader.

**Claim 22 (original):** The structure of claim 21 wherein a semiconductor die ground bond pad on said semiconductor die is electrically connected to said substrate down bond area by a down bonding wire.

**Claim 23 (original):** The structure of claim 19 wherein said heat spreader is attached to a printed circuit board by solder.

**Claim 24 (original):** The structure of claim 17 wherein said heat spreader is a thermal conductor.

**Claim 25 (original):** The structure of claim 24 wherein said heat spreader is attached to a printed circuit board by solder.

**Claim 26 (original):** The structure of claim 17 wherein a second via in said substrate provides a connection between a signal bond pad of said semiconductor die and a printed circuit board.

**Claim 27 (original):** The structure of claim 17 wherein said first via provides an electrical connection between said semiconductor die and said heat spreader.

**Claim 28 (canceled).**

**Claim 29 (original):** The structure of claim 17 wherein said first via provides a thermal connection between said semiconductor die and said heat spreader.

**Claim 30 (canceled).**

**Claim 31 (original):** The structure of claim 17 wherein said substrate comprises organic material.

**Claim 32 (original):** The structure of claim 31 wherein said organic material is selected from the group consisting of polytetrafluoroethylene material and an FR4 based laminate material.

**Claim 33 (original):** The structure of claim 17 wherein said substrate comprises a ceramic material.

**Claim 34 (original):** The structure of claim 26 wherein said second via provides an electrical connection between a substrate bond pad and said printed circuit board, wherein said substrate bond pad is electrically connected to said signal bond pad of said semiconductor die.

**Claim 35 (original):** The structure of claim 34 wherein said second via abuts said substrate bond pad.

**Claim 36 (original):** The structure of claim 34 wherein said substrate bond pad is electrically connected to said signal bond pad of said semiconductor die by a signal bonding wire.

**Claim 37 (original):** The structure of claim 26 wherein said second via provides an electrical connection between said signal bond pad of said semiconductor die and a land, said land being electrically connected to said printed circuit board.

**Claim 38 (original):** The structure of claim 37 wherein said second via abuts said land.

**Claim 39 (original):** The structure of claim 26 wherein said second via provides an electrical connection between a substrate bond pad and a land, wherein said substrate bond pad is electrically connected to said signal bond pad of said semiconductor die, and wherein said land is electrically connected to said printed circuit board.

**Claim 40 (original):** The structure of claim 39 wherein said second via abuts said substrate bond pad and said land.

**Claim 41 (original):** The structure of claim 39 wherein said substrate bond pad is electrically connected to said signal bond pad of said semiconductor die by a signal bonding wire.

**Claim 42 (original):** The structure of claim 17 wherein said first via comprises copper.

**Claim 43 (original):** The structure of claim 26 wherein said second via comprises copper.

**Claim 44 (previously presented):** A structure comprising:  
a substrate having a top surface and a bottom surface;  
a semiconductor die attached to said top surface of said substrate;  
a heat spreader attached to said bottom surface of said substrate;  
a support pad attached to said top surface of said substrate, said support pad being connected to said heat spreader;  
a first plurality of vias in said substrate;

said first plurality of vias providing a connection between said semiconductor die and said heat spreader.

**Claim 45 (original):** The structure of claim 44 wherein said heat spreader is attached to a printed circuit board.

**Claim 46 (original):** The structure of claim 45 wherein a second plurality of vias in said substrate provide connections between a plurality of signal bond pads of said semiconductor die and said printed circuit board.

**Claim 47 (original):** The structure of claim 44 further comprising a substrate down bond area attached to said top surface of said substrate.

**Claim 48 (original):** The structure of claim 47 wherein said first plurality of vias provide an electrical connection between said substrate down bond area and said heat spreader.

**Claim 49 (original):** The structure of claim 48 wherein a ground bond pad on said semiconductor die is electrically connected to said substrate down bond area by a down bonding wire.

**Claim 50 (original):** The structure of claim 44 wherein said first plurality of vias provides an electrical connection between said semiconductor die and said heat spreader.

**Claim 51 (original):** The structure of claim 44 wherein said first plurality of vias provides a thermal connection between said semiconductor die and said heat spreader.

**Claim 52 (original):** The structure of claim 46 wherein said second plurality of vias provide electrical connections between a plurality of substrate bond pads and said printed circuit board, wherein each of said plurality of substrate bond pads is electrically connected to a respective one of said plurality of signal bond pads of said semiconductor die.

**Claim 53 (original):** The structure of claim 46 wherein said second plurality of vias provide electrical connections between each one of said plurality of signal bond pads of said semiconductor die and a respective one of a plurality of lands, said plurality of lands being electrically connected to said printed circuit board.

**Claim 54 (original):** The structure of claim 44 wherein said first plurality of vias comprise copper.

**Claim 55 (original):** The structure of claim 46 wherein said second plurality of vias comprise copper.

**Claims 56-71 (canceled).**